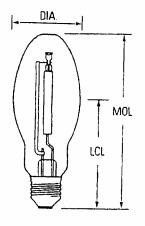
CONSTANTCOLOR® CMH™ METAL HALIDE LAMPS

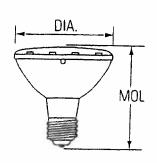
* / LL	
Elliptical	3-9
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Double-Ended TD	3-9
Elliptical Single-Ended G12 Double-Ended TD Mini's PULSEARC™ MULTI-VAPOR® METAL HALIDE LANCE	5-5 ዓ በ
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DELUXE LUCALOX® HIGH PRESSURE SODIUM LAMPS	3-18
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Mercury (Mercury Retrofit)	3-21



L099 GE 000052

BULB IDENTIFICATION





DIA: Diameter of bulb at widest point.

MOL: Maximum Overall Length including base or pins.

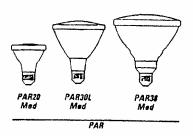
LCL: Distance between the center of the arc tube and the Light Center Length reference plane.

Note: Lamp drawings are not drawn to scale.

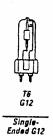
Be sure to check size and dimension information when identifying each lamp.

To convert inches to millimeters, multiply the dimension (in inches) by 25.4 (i.e. $1.5'' \times 25.4 = 38.1 \text{ mm}$).

LAMP LOCATOR



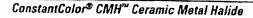


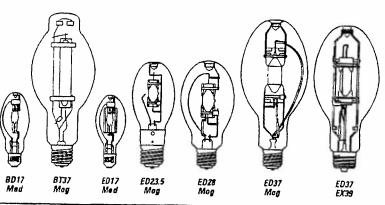




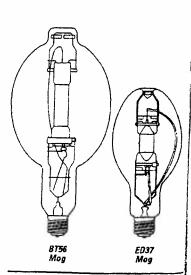


ED37 Mog Chromafit™ Multi-Vapor® Metal Halide Lamps (HPS Retrofit Lamps)



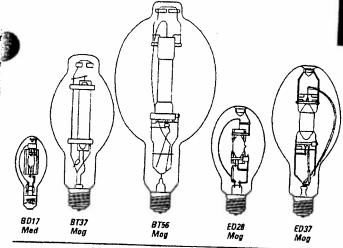


PulseArc™ Multi-Vapor® Metal Halide Lamps

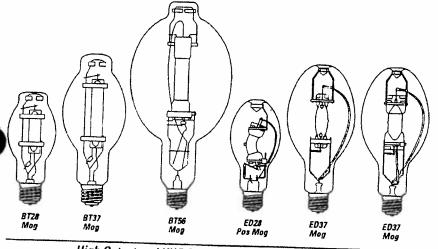


l-Line Multi-Vapor® Metal Halide Lamps (Mercury Retrofit Lamps)

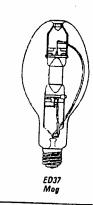
L099 GE 000053



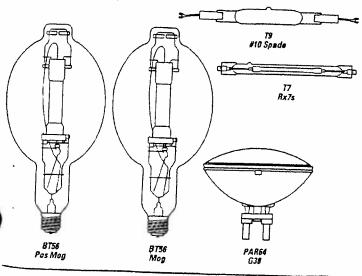
Multi-Vapor® Metal Halide Lamps



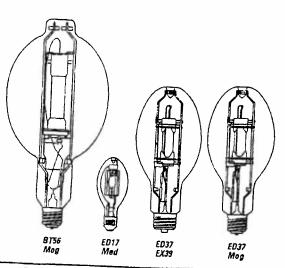
High Output and XHO Multi-Vapor® Metal Halide Lamps



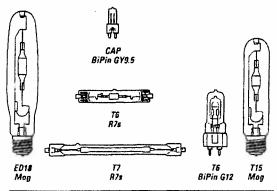
Saf-T-Gard® Self-Extinguishing Multi-Vapor® Lamps



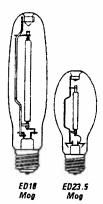
Sportslighting



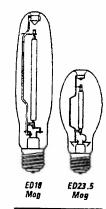
Protected Multi-Vapor® Metal Halide Lamps L099 GE 000054



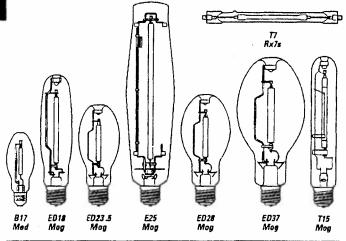
Arcstream™ Metal Halide Lamps



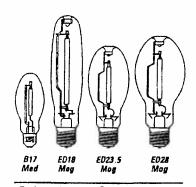
Ecolux® NC Non-cycling High Pressure Sodium Lamps (TCLP Compliant)



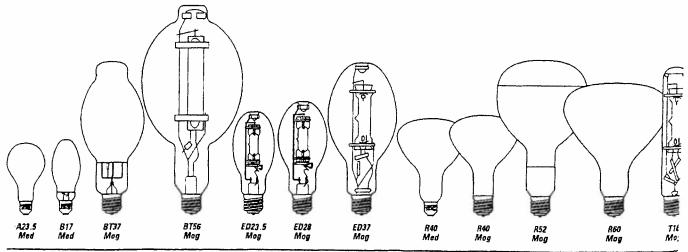
Ecolux® High Pressure Sodium Lamps (TCLP Compliant)



Lucalox® High Pressure Sodium Lamps



Deluxe Lucalox® High Pressure Sodium Lamps



Mercury Lamps

L099 GE 000055

High Intensity Discharge Lamps B737 ED28 T16 BY22d ED28 ED37

E-Z Lux® High Pressure Sodium Lamps (Mercury Retrofit)

SOX Low Pressure Sodium Lamps

Saf-T-Gard® Mercury Lamps

E-Z Merc® Self-Ballasted Lamps (Incandescent Retrofit)

ED28 Mog

BASE IDENTIFICATION









 \mathcal{M}

(Export Only)





Mog Screw



Position Oriented Mogul











ED24







Mogul BiPost Ext. Mog End Pr GX16d

INTRODUCTION

GE HID lamps provide the following benefits:

High Efficacy/Low Operating Cost.

HID is generally the most efficient light source. Better efficiency almost always means lower operating cost.

Long Life.

Med Screw

Most HID lamps have life ratings that are better than incandescent lamps and similar to fluorescent lamps.

An HID lamp produces high light output from a relatively compact source. Like incandescent, it is a "point" light source, which allows for good optical control.

The chart below shows how HID lamps compare to incandescent, halogen, and fluorescent in terms of efficiency and rated average life. Efficiency is measured in lumens per watt (LPW). Rated average life for most lamp types is the number of burning hours when 50% of the tested samples have failed and 50% are still operational. For both HID and fluorescent, lamp life depends on the number of hours per start.

The combination of high efficiency and long life makes HID an ideal light source for many commercial and industrial applications.

Lamp Тура	Typical LPW	But at A. S. S. S. S. S. S. S.
incandescent	5 - 22	Raled Avg. Life (in hours)
Halogen	12 - 36	750 - 2000
Compact Fluorescent	27 - 80	2000 - 6000
Fluorescent	75 - 100	9000 - 20,000
Mercury	50 - 60	12,000 - 24,000 +
ConstantColor® CMH*		12,000 - 24,000 +
Multi-Vapor® Metal Halide	80 - 95	6,000 - 15,000
	80-115	10,000 - 20,000
ucalox® High Pressure Sodium	90 - 140	10,000 - 40,000

INTRODUCTION (CONTINUED)

SUGGESTED COLOR APPLICATIONS FOR HID LAMPS

CMHT: Stores, people places, display, accent.

MVR: Stores, public spaces, industrial, gymnasiums, floodlighting signs and buildings, parking areas, sports.

MVR/C: Same as MVR – warmer color – diffuse coating reduces glare. MVR/SP30: Same as MVR – warmer than MVR or MVR/C – matches SP30 fluorescent.

MXR: Warm color (3200K) - good match for halogen.

 $\mbox{LU:}$ Street lighting, parking areas, industrial, floodlighting, security, CCTV.

LU/DX: Floodlighting, parking areas, indoor/outdoor pedestrian malls industrial, security, roadway.

Deluxe (DX) Mercury: Stores, public spaces - Metal Halide lamps however, are preferred.

Clear Mercury: Landscape lighting, specialized floodlighting such as green copper roofs.

PRODUCT INFORMATION

GE CONSTANTCOLOR® CMH™ CERAMIC METAL HALIDE LAMPS (pg 3-9)

- Color uniformity lamp-to-lamp and over lamp life
- Excellent color rendering (80+CRI)
- Delivers more light than standard metal halide (10%-20% more than standard metal halide)
- Lamp operates at high efficacy up to 95 lumens per watt
- Universal burn may be operated in any position
- Easy retrofit since lamp operates on standard metal halide ballasts
- Perfect for retail and commercial display lighting, accent and floodlighting, lobby and foyer lighting. Ideal for "people places."

GE MULTI-VAPOR® METAL HALIDE LAMPS (pgs 3-10 to 3-15)

- Sparkling white light (3000-4000K) and very good color rendition (65-75CRI)
- Warm, rich 3000K color of SP30 blends well with incandescent, halogen and triphosphor fluorescent lamps for interior retail applications
- High efficacy more efficient than incandescent, mercury and most fluorescent sources
- Long life 10,000-20,000 hours for most types
- Full line, 150-1000 watts, to meet most application needs
- Uses: Downlighting, floodlighting, corridors, lobbies, walkways; retail, commercial, industrial

GE PULSEARC™ MEDIUM BASED METAL HALIDE LAMPS (/MED MODELS) (pg 3-10)

- Low wattage metal halide lamps (formerly Halarc[®]) are now part of the PulseArc[™] family
- Compact source
- Sparkling white tight (3000-4000K) and very good color rendition (70-75CRI)
- High efficacy more than 3 times the lumens per watt of incandescent
- Long life up to 15 times longer than incandescent systems and up to 7 times longer than most PAR and R systems, saving maintenance and labor costs
- Superior optical control
- Uses: Display lighting, downlighting, floodlighting, corridors, lobbies, walkways; retail, office, commercial

GE PULSEARC™ MULTI-VAPOR® METAL HALIDE LAMPS (/PA MODELS) (pgs 3-10 and 3-11)

- Designed for operation only on approved ballasts with metal halide pulse ignitors
- More light 400W lamps provide highest initial and highest maintained lumens versus other standard universal or vertical base-up lamp options
- 50% longer life 400W lamps provide 30,000 hours life when burned on 120 hour on/1 hour off cycle (approximately continuous)
- Faster hot restrike less than 4 minutes versus 10-15 minutes for typical metal halide lamps

GE HIGH OUTPUT MULTI-VAPOR® LAMPS (pgs 3-12 and 3-13)

- More light optimized for higher light output in horizontal, vertical base-up and base-down burn applications
- Horizontal burn lamps provide up to 25% more light than standard universal burn equivalents
- 400W/XHO vertical burn lamps provide up to 22% more light than standard universal burn equivalents; the highest lumen lamps available for operation on standard M59 ballasts
- Longer life horizontal burn lamps last up to 67% longer than universal burn lamp equivalents, significantly reducing replacement lamp and maintenance costs
- Brighter longer introducing GE Staybright[®] (/STB) with 32% higher mean lumens
- Uses: any application where fixed-orientation lamps can be used.
 Cas stations, sports lighting, billboards, retail, office, roadway, parking garages, floodlights, sign lighting.

GE PROTECTED HIGH OUTPUT MULTI-VAPOR® LAMPS (/O) (pg 3-14)

- Protective quartz jacket surrounds the arc tube
- The/O suffix and/or the "MPR" prefix in the Lamp Description indicates lamps are suitable for open fixture applications

GE CHROMAFIT™ MULTI-VAPOR® LAMPS (/R) (pg 3-14)

- Convert high pressure sodium sockets to crisp white metal halide light
- Operate on standard HPS ballasts and auxiliary equipment
- Uses: Area lighting, industrial and "people places"



GE I-LINE MULTI-VAPOR® LAMPS (pg 3-15)

- · Convert mercury sockets to crisp, white metal halide light
- More light, better color, energy cost savings for mercury users
- 40%-100% more light than existing mercury lamps
- Operate on standard CW and CWA mercury ballasts and auxiliary equipment

GE SAF-T-GARD® MULTI-VAPOR LAMPS (MVT) (pg 3-15)

- Special self-extinguishing feature prevents exposure to harmful UV in case outer bulb is punctured or broken; lamp turns off within 15 minutes
- Meets requirements of Federal Standard 21CFR1040.30
- Saf-T-Gard® I-line lamps convert mercury sockets to crisp, white metal halide light
- Saf-T-Gard I-line lamps operate on standard mercury ballasts and auxiliary equipment
- Uses: Industrial, commercial, gymnasiums, sports complexes, especially where open fixtures are used and risk of outer bulb breakage is possible

GE ARCSTREAM™ METAL HALIDE LAMPS (pg 3-15)

- Compact size, white light, excellent color
- Precise optical control delivers a concentrated beam of light right where it's needed
- Variety of color temperatures (3,000K 6,000K)
- PAR64: ideal for long-range projection and sports lighting applications
- Uses: Ideal for retail and commercial display lighting, floodlighting, accent/highlighting

GE LUCALOX® HIGH PRESSURE SODIUM LAMPS (pg 3-15 to 3-17)

- Very high efficacy/low operating cost
- Superior lumen maintenance over 90% @ 50% of life
- Very long life 24,000+ hours
- Universal burn can be operated in any position without affecting performance
- · Warm color
- For open or enclosed fixures
- · Uses: Industrial, roadway, security, floodlighting

GE DOUBLE-ENDED LUCALOX® LAMPS (/TD) (pg 3-17)

- Compact tubular design fits compact fixtures for excellent optical control
- High efficacy, lumen maintenance and long life of standard Lucalox® HPS

GE STANDBY LONGLIFE LUCALOX® LAMPS ି(/SBY) (pg 3-17)

- Extra arc tube provides light instantly after momentary power interruption, and will increase to 80% light output in 1-2 minutes
- Dual arc tubes provide 40,000 hour rated life
- Operates on standard HPS ballasts and auxiliary equipment
- Uses: Industrial, roadway, security, and hard-to-reach sockets

GE ECOLUX® NC "NON-CYCLING" HIGH PRESSURE SODIUM LAMPS (/ECO/NC) (pg 3-17)

- · Low mercury. Passes TCLP, which can lower disposal costs.
- Non-cycling feature makes locating and replacing end-of-life lamps quick and easy
- Lead-free base
- High efficacy/low operating cost
- 6%-11% higher initial lumens than standard HPS in 100W and 400W versions
- Long life 24,000 hours
- Open or enclosed fixtures
- · Uses: Industrial, roadway, security

GE ECOLUX® HIGH PRESSURE SODIUM LAMPS (/ECO) (pg 3-18)

· Lead-free base. Passes TCLP, which can lower disposal costs.

GE DELUXE LUCALOX® HIGH PRESSURE SODIUM LAMPS (pg 3-18)

- High efficacy, lumen maintenance and long life of standard Lucalox[®] HPS
- High color rendering (65-70CRI), much better than standard HPS
- Blends well with incandescent and standard HPS sources
- Operates on standard HPS ballasts and auxiliary equipment
- · Uses: Storage rooms, industrial facilities, offices, gymnasiums, malls, parks, building floodlighting

GE E-Z LUX® HIGH PRESSURE SODIUM LAMPS (pg 3-18)

- Direct replacement for mercury lamps on mercury ballasts
- More efficient, 57-114% more lumens and 10-14% fewer watts than mercury lamps they replace
- Uses: General lighting, roadway
- See operating notes for further information

GE SOX LOW PRESSURE SODIUM LAMPS (pg 3-18)

- Highest luminous efficacy for general, not for color-critical lighting
- Monochromatic, yellow color (589nm).

GE MERCURY LAMPS (pg 3-19)

- Long life and good efficacy
- Phosphor coated Deluxe lamps provide good color rendering (50CRI)
- Uses: Industrial, roadway, landscapes, residential and commercial security, parking lots

GE SAF-T-GARD® MERCURY LAMPS (pgs 3-19 and 3-20)

- Special self-extinguishing feature prevents exposure to harmful UV in case outer bulb is punctured or broken; lamp turns off within 15 minutes
- Meets requirements of Federal Standard 21 CFR 1040.30
- See operating notes for further information



PRODUCT INFORMATION (CONTINUED)

GE EZ MERC® SELF BALLASTED MERCURY LAMPS (pg 3-20)

 Retrofit incandescent sockets to longer-life mercury lamps without additional mercury ballasts or auxiliary equipment

GE EXPORT BASE LAMPS (pg 3-20 and 3-21)

- Export-only lamps are not intended for use in North America due to potential shock hazard. The lamps are identified by "/27" or "/40" at the end of the lamp description, and comply with electrical characteristics defined by IEC standards.
- · Bulb shapes are generally similar to U.S. lamp types. Refer to drawings on pages 3-2 to 3-5.

HEADINGS IN THIS CATALOG SECTION

The following terms and descriptions can help you when checking High Intensity Discharge lamp specifications and when ordering products. Within each product line, lamps are divided into families. Within families, lamps are listed by wattage. In each of these wattage groups, lamps are listed by bulb shape.

Bulb: Bulb shape followed by its size (the maximum diameter of the bulb expressed in eighths of an inch).

Approximate CBCP (Center Beam Candlepower):

For reflector type lamps, Center Beam Candlepower is the intensity (candelas) at the center or maximum intensity of the beam. Used only for ConstantColor CMH* Metal Halide Lamps

GE /	OSRAMJSYLVANIA	PHILIPS
Arcstream MQI	BRITE-LINE", HOIP	MHN-TD
ChromaFit™ Multi-Vapor●		144114-117
ConstantColor® CMH® Ceramic Metal Halide		MasterColor COM
Deluxe Lucalox®		Ceramalux™ Comfort
E-Z Lux®	Unalux*	Ceramalux Retrolux
E-Z Merc®	_	Self Ballasted Mercury
Ecolux*	Lumalux ECO®	Ceramafux Alto
Ecolux® NC	Lumalux Plus*/ECO*	Ceramalux Alto® Plus
High Output Multi-Vapor●	Super Metalarc	Metal Halide
Horizontal Multi-Vapor®	Super Metalarc®	wicter Hande
l-Line Multi-Vapor●		
Lucalox®	Lumalux*	Ceramalux*
Multi-Vapor●	Metalarc•	Metal Halide
Protected High Output Multi-Vapo	r● Metalarc● Pro-Tech™	metal name
PulseArc*	Super Metalarc® Pulse Start	Pulse Start
Sal-T-Gard Mercury	Mercury Safetine®	
Sal-T-Gard™ Multi-Vapor●	Metalarc® Safeline®	Salety Lifeguard Mercury Safety Lifeguard Metal Halide
SOX Low Pressure Sodium	SOX Low Pressure Sodium	SOX Low Pressure Sodium
Standby Longlife Lucalox®	Lumalux® Standby	Instant Restrike Ceramalux
tayBright•		morant neptime ceramatox.
Vatt-Miser® Multi-Vapor®		

ATTENTION: This brand-name cross-reference chart is provided only as a quick reference. Other lamp compan brand listings may only represent a near equivalent, versus an identical match to GE Lighting brands. Individual lamp orand instants may only represent a near equiversity. The consulted, Lamp performance may be affected by environmental manufacturers' performance specifications should be consulted. Lamp performance may be affected by environmental and the consulted of the cons conditions, ballast type and/or other auxiliary equipment.

LET (Lamp Enclosure Type): Describes fixture requirements for this lamp (see page 3-22)

OP (Operating Position):

(see page 3-22). MOL: Maximun Overall

Length in inches

LCL:

Distance between the center of the filament and the Light Center Langth relevence plane, in inches

> Order Code: It is important to use this live-digit code when ordering to ensure that you receive the exact product you require.

Lamp Description: The lamp's identification code

Lumens - Mean:

Lamp light output (lumens) at 40% of rated lamp life for Metal Halide lamps and 50% of raied life for Mercury and HPS lamps.

Case Oty.:

Number of product units packed in a case.

ANSI Ballast Type: Ballast type used to

operate lamo.

Rated Avg Life Hours: Lamp burning hours to median life expectancy

Lumens - Initial;

Initial light output

Color Temperature Kelvins (K):

A measure of the visual "warmth" or "coolness" of the light from the lamp. The higher the value the whiter or "cooler

> Color Rendering Index (CRI or R_e): An indication of the ability of the lamp to render object colors in a normal, natural way. The higher the number (0-100), the better the color appearance.

> > Additional Information: Typical application and/or other important information.

Bulb Base LET OP MOL LCL Code

Description

ANSI

Ballast Type

Case Avg. Life ... Lumens Oty. Hours Initial Mean

Temp.

Additional Information

HIGH OUTPUT AND XHO MULTI-VAPOR® METAL HALIDE LAMPS

400 WATTS

Base Type:

ED37

S VBU 11.5 7

49656 MVR400/C/VBU

M59

6 20000 41000

3700 70 Coated

MVR400 / C / VBU

Identifies as Multi-Vapore hamp.

Identifies the lamp's wattage Outer bulb finish

Operating position (see page 3-22)

WHEN YOU DON'T KNOW THE LAMP DESCRIPTION

- I. Identify bulb shape by using illustrations on pages 3-2 to 3-5.
- 2. Measure bulb diameter using ruler in Appendix section page A-I to determine width in eighths of an inch.
- 3. Identify base type using table on page 3-5.
- 4. Find your lamp in the tabular data containing the bulb shape, size and base, which are all listed by wattage.

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		• •	•	JJ 4	1./3		420	66 CMH39/PAR30	USP15			6	29000	1000	0 240				- 00, 1
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			10	0 5	31		4568	O CMH100/DAD20	MOORE							N/A	300		33
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טורווו טו	12 5	U	39	3.5	6	2.18 4	2070	CMH39/T/U/830/G	12	M130	12		1	0000	3400	2400	2000	. 00	
			/0	3.5	6	2.18 9 2	2582	CMH70/T/U/830/G	12	M85, M98,	12								33, 39,
						0,	0503	CHANGE THE CO.		or M139					0200-	3000	2000	> 80	33, 39,
						32	:003	CMH/U/1/U/942/G	12		12		1	5000	5400	5200	4200	> 90	33, 39,
			150	3.9:	3 2	2.18 92	584	CMH150/T/11/920/	212									, 00	JJ, JJ, .
					_		,	0.077730/1/0/030/1	312		12		1.	2000	14000	11000	3000	> 80	33, 39, 4
						92	586	CMH150/T/U/942/0	12		12		1.	2000	10000				
										or M142	12		14	2000	13000	11000	4200	> 90	33, 39, 4
E-FUD	ILU	ID (COL	.OR	ST	ABIL	ITY	OVER LIFE ±7	5K)				•						
Rx7s	Ε	H45	70	4.5						MRS MGR	12			-000	7000				
											12		15	0000	/000	5600	3000	> 80	33, 39
						925	88	CMH70/TD/942/RX		M85, M98,	12		15	000	7000	5600			
										or M139	-		, ,	000	7000	2000	4200	> 90	33, 39
v7a	-	IIAF .			~ ~	62 92F	89 (CMH150/TD/830/RX	78	M81, M102	12		15	000	14000	11500	3000	> 80	20.00
3x7s	E	H45	150	5.37	۷.											11300	2000	> 80	
lx7s	E	H45 1	150	5.37	۷.					or M142									33, 39
lx7s	E	H 4 5	150	5.37	۲.			CMH150/TD/942/RX	7S 1	or M142 M81, M102	12		150	000	14000	11500	4200		
lx7s	E	H45	150	5.37	۷.				7S 1	or M142	12		150	000	14000	11500	4200	> 90	33, 39
						925	90 (CMH150/TD/942/RX	75	or M142 M81, M102	12	<u>-</u>	150	000	14000	11500	4200		
3x7s iPin G8.5		IJ	20 (3.37	2	925 926	90 (96 C	CMH150/TD/942/RX	7\$ f	or M142 M81, M102	12				14000			> 90	33, 39
		IJ 	20 S		2 2	925 9269 9035	90 (96 C	CMH150/TD/942/RX	7S 1	or M142 M81, M102 or M142 Pending	12		60	000		11500 1200 2600	3000		
	COLC O Med OL Med Med TICAL Med E-END BiPin G	COLOR S O Med OL Med TICAL (CO Med E-ENDED BiPin G12 E	COLOR STAB O Med O U O Med O U Med O U Med O U TICAL (COLOR Med E U E-ENDED G12 BiPin G12 E U	STANTCOLOR® C COLOR STABILIT O Med	STANTCOLOR® CMH	COLOR STABILITY OVE COLOR STABILITY OVE O Med	STANTCOLOR® CMH META	STANTCOLOR	COLOR STABILITY OVER LIFE ±150K CMH39/PAR301 42066 CMH39/PAR301 42067 CMH39/PAR301 45066 CMH39/PAR301 45066 CMH39/PAR301 45066 CMH39/PAR301 45067 CMH70/PAR38/R 45677 CMH70/PAR38/R 45679 CMH70/PAR38/R 45680 CMH100/PAR38/R 45681 CMH100/PAR38/R 45682 CMH100/PAR38/R 4	STANTCOLOR	STANTCOLOR				Color Colo	Color Characteristics Characterist	Pass LET, OP, Wests MOL CC Code Description Type Cds Cds	Color Stanttolor Chief Code Description Stanttolor Chief Code Description Type Chief Code Chief Code Description Type Chief Code Chief Chief Code Description Type Chief Chi	Stant Color Stant Mode CC Code Description Type Care Arg Life Lumans Timp Stant Color Stan

		1				Ord	er .		t Case	Ra	ted	Lumens	Col			
	Base							ype ype	ng Cly	Но	urs 🦫 Ini	tial M	Tem an K	o. Additi CRI Inform	onal stion	Fo
PUL	SEARL	IVI	ULI	-VA	'Uh	IN C	ETAL HALIDE LAM	-5								1,000
	VATTS			-							. **	147	Arjan -	Are per tight to the second		
ED 17	Med	0	VBD				51 MXR32/C/VBD/0	M 100	6	10000	240	00 17	00 32	0 70 Coated, Pr	ntected	
FA 14			VBU	5.43	3 3.4	13 164	69 MXR32/C/VBU/O	M100	6	10000	240		00 320	0 70 Coated, Pr	otected	
	VATTS													, , ,		
ED17	Med	0	U	5.43	3.4		70 MXR50/U/MED/O	M110	6	10000	340	0 170	M 350	0 70 Clear, Prot		
							71 MXR50/C/U/MED/O	M110		10000	320		0 350	0 70 Clear, Prot 0 70 Coated, Pro	ected	-
BD17	Med	£	U	5.43	3.4		51 MXR50/U/MED	M110	6	5000	390			0 70 Clear	vected	
							4 MXR50/C/U/MED	M110	6	5000	350			0 70 Coated		
							1 MVR50/U/MED	M110	6	5000	310			75 Clear		
70 18	ATTO					1258	3 MVR50/C/U/MED	M110	6	5000	290	0 160		75 Coated	·····	
	ATTS						. = .				= , _) +-				
ED17	Med	0	U	5.43	3.43		7 MXR70/U/MED/O	M98	5 1	2000	5500	350	320	70 Clear, Prote	cted	
2017							7 MXR70/C/U/MED/O	M98		2000	5300		3200	70 Coated, Pro	tected	
3017	Med	E	U	5.43	3.43		8 MXR70/U/MED	M98	6 1	2000	5500		3200	70 Clear		
							2 MXR70/C/U/MED	M98		2000	5300	3300		70 Coated		
							0 MVR70/U/MED	M98		2000	4700	3000	4000	75 Clear		
กก ง	VATTS					12334	4 MVR70/C/U/MED	M98	6 1	2000	4500	2800	4000	75 Coated		
							,					19 1 9				
D17	Med	0 1	U	5.43	3.43		MXR100/U/MED/O	M90		5000	9000			70 Clear, Protei	ted	
D17	Med	ΕI	1	F 40	2 42	12579	MXR100/C/U/MED/O	M90	6 1		8500	5900	3200	70 Coated, Prot	ected	
ווע	MEG	Ε (U	5.43	3.43		MXR100/U/MED	M90	6 1		9000	6200		70 Clear		
							MXR100/C/U/MED	M90	6 15		8500	5900		70 Coated		
							MVR100/U/MED MVR100/C/U/MED	M90	6 15		8100	5800		75 Clear		
50 W	/ATTS					12033	WIN WINDOWS OF WIED	M90	6 15	000	7600	4900	4000	75 Coated		
D17	Med	0 (C 40	2.40	15000	EAM DATE HE CARD IN			. 1			• .			
יוט	IVIEU	טנ	,	5.43			MXR150/U/MED/O	M102	6 15		12500	8600	3500	70 Clear, Protec	ted	
D17	Med	ΕU	<u> </u>	5.42			MXR150/C/U/MED/O	M102	6 15		12000	8300	3500	70 Coated, Prote	cted	
J . ,	IVICU		,	3.43			MXR150/U/MED MXR150/C/U/MED	M102	6 15		12500	8600	3200	70 Clear		
							MVR150/U/MED	M102	6 15		12000	8300	3200	70 Coated	· · · · · · · · · · · · · · · · · · ·	
							MVR150/C/U/MED	M102	6 15		11700	8100		75 Clear		· · · · · · · · · · · · · · · · · · ·
75 W	ATTS					12007	MANISOFOFOFMED	M102	6 150	000	11200	7700	4000	75 Coated		
23.5		E V	DII	7.5		,,,,,	MANDARRADIUM									
, 20.0	MOG	L V	00	7.5			MXR175/VBU/PA MXR175/C/VBU/PA	M137	6 150		1 7 00 0	12500	3200	5 Clear		43
							MVR175/VBU/PA	M137	6 150		16000	12000		5 Coated		43
							MVR175/C/VBU/PA	M137	6 150		17500	13000		5 Clear		43
17	Med	E V	BU !	5.75 3	3.43 1	2636	MVR175/VBU/MED/PA	M137 M137	6 150		16500	12500		5 Coated		43
							MVR175/C/VBU/MED/PA	M137	6 150		17500	13000		5 Clear		43
0 W	ATTS				•	,	WALLED A POLINED LA	WI13/	6 150	UU	16500	12500	4000 7	5 Coated		43
28	Mog	E 1/5	eta c	3.25 5		C247	BENDACA MIDUNA									
20	wing	LV	00 0).Zj j	2	0317	MVR250/VBU/PA	M138	12 2000		23000	17000	4200 6	5 Clear		30, 43
					21	6319	MVR250/C/VBU/PA	M138	1500		24500		· · · · · · · · · · · · · · · · · · ·			
						• • •		171130	12 2000 1500		21500	15500	3900 6	Coated		30, 43
W.	ATTS								1300							
28	Mog	E VB	U R	.25 5	27	7501 !	MVR320/VBU/HO/PA	M122	10 0000							
	3			J	-		MVR320/C/VBU/HO/PA		12 2000			18000	4000 65			43
							MVR320/VBU/XHO/PA		12 2000			16500	3700 70			43
							AVR320/C/VBU/XHO/PA		12 2000			25000	4000 65			43
						300 H		IVITOL	2000	v 3	3000	23000	3700 70			43
														L099 GE 00006	3.1	

			giran.		4037	Order			ANSI	1: 13 1: 17	R	eted	in Par	, i	Color	T.,642393,424-13	to the stray . The
Bulb	Bas	LEI	OP	MOL	LCL	Code	Description		Ballast Type		- AV	ı. Life	Lume	NS :	Toma	4.444	
PUL	SEAR	M M	ULTI-	VA	POR®	MET	AL HALIDE LA	MPS	DALTIALL	ury	Co. HC	ours In	itial 37	Me	n K	CRI Information	3 13 A 13 A 1
320	WATT	S (cor	ITINUI	ED)				ini o (c	JMTIMU	EU)							
ED37	EX3		VBU		7	46275	MPR320/VBU/XHO	та .	4100								
						46276	MPR320/C/VBU/XH	/PA [A132		2000			2500	4000	65 Clear, Protected	4:
350 V	NATT:	3					HOLO, Of T. BOJAI	10/1 A	/1132	ь	20000	0 305	00 2	1500	3700	70 Coated, Protecte	d 4:
ED37	Mog	S	VBU	11.5	7	40376 1	MVR350/VBU/XHO/	PA N	1131		30000		00 2	750 0	4000	62 Clear	30
					i	10377	/VR350/C/VBU/XH	O/PA N	1131		20000 30000		n 26	000	2700	CF 0	
	EX39		VBU 1	11 5	7 7	0004 =					20000		,	0000	3700	65 Coated	30
	C/(03	U	VDU :	11.3			1PR350/C/VBU/PA		131		30000		0 23	500	3400	70 Clear, Protected	30,
					4	8825 N	1PR350/C/VBU/3K/	PA M	131		0000	3340	0 23	500	3700	70 Coated, Protected	20
400 W	VATTS									2	0000						30,
ED37	Mog		/B U 1	1.5	_		VR400/VBU/HO/PA		135		0000 0000	41000) 31(000	4000 8	5 Clear	30,
					4!	665 M	VR400C/VBU/HO/P	A M	35		0000	40000	300	າດດ	3700 7	O Coated	
					12	642 M	VR400/VBU/XHO/P	A	25	2	0000				5700 /	o oudie(j	30,
						_			J 5	6 31 21)000 1000	44000	330	00	4000 6	5 Clear	30,
					12	644 M	VR400/C/VBU/XHO	PA M1	35	6 30	000	42000	315	00	3700 70) Coated	30, 4
	EX39	0 V	BU 11	.5	7 46	273 MI	R400/VBU/XHO/P	A M1	35	6 20	000	42000					30, 4
					46	274 MI	R400/C/VBUXHO/I	A M1		6 20		42000 400Q0	2950		4000 65	Clear, Protected	43
D28	Mog	E V	BU 8.	.25 5	46	271 MV	R400/VBU/ED28/P	A M1:		12 20		44000	2800 2850		3/00 70	Coated, Protected	43
50 W	ATTO				462	272 MV	R400/C/VBU/ED28/	PA MI		12 20		42000	2750		4000 65 3700 70		43
		_				2. 01	•						2700		3700 70	Coated	43
T37	Mog	S VE	BU 11.	5 7		19 MV	R750/VBU/PA	M14	9	6 160	000	82000	6000	n	4000 65	Class	
11115-7	VADO	DO D			455	60 MV	R750/C/VBU/PA	M14	9	6 160		72000	5400		3700 70		43
ULIK	-VAPO	Ka IA	EIA	- i/	LID	LAW	PS							Ė	0700 70	Coateu	43
50 WA							er en										
28	Mog	ΕU	8.2	25 5	134	81 MV	R150/U/WM	M57	1	2 100	00 V	13500 V	8500	V		Clear, Watt-Miser	TL.
					1349	O MV	R150/C/U/WM	M57	1	2 100	10 M	11500 H	/200	H			
5 WA	TTC								•	750	ЮН	10900 H	6900	H.	3700 70 (Coated, Watt-Miser®	*
		F															
17 (viea	EU	5. /.	5 3.4			175/U/MED	M57	6	1000 600	0 V 0 H	13600 V 11700 H	8800 7400	V 4	1000 65 C	lear	
					2643	2 MVR	175/U/MED/CP	M57	4	1000	0 V	13600 V	8800	V 4	000 65 C	ear, Consumer Pack	
					1997	6 MVR	175/C/U/MED	M57	6	1000	OH OV 1	11700 H 12900 V	7400	п			
8 N	1og i	U	0.20			_			·			1900 H	7900	V 3 H	900 65 C	pated	
, J¥	iog i	: 0	8.25) 5		MVR	-	M57	12	1000	V 1	3600 V	8800	V 41	000 65 CI	ear	
					26433	MVR1	75/U/CP	M57	4	10000	V 1	1700 H 3600 V	7400 l 8800 \	/ 40	000 65 CI	ear, Consumer Pack	
					47761	MVR1	75/C/U	M57	12	10000	V 12	2900 V	/400 F	1	00 70 Co		
					17634	MVR1	75/SP30/U	M57		6000	H 11	1900 H	7900 H				·-
38 M	ed F	U	5.62		25240	1 mino	17.00		_	6000	H 10		6500 H	30	00 /0 HE	30 Phosphor Coating	0
- 171		U	J.02		72718	MVK1	75/PAR38/FL/1	M57	6	7500						ar, One-piece PAR	

L099 GE 000062

Bulb	Base	LET OP	MOL		Order Code		Ballast	Cas	Rate Avg. L	ile Lu	mans .	Colo	p. Additional
MULT	I-VAPO					LAMPS (CONTINUED)	. h. 642 17.2 1	8.29	Hall Hoos	124		2010.	CRI. Information Footn
250 V	ATTS							• :			. 1		
ED28	Mog	ΕU	8.25	5	42729	MVR250/U	M58	12	10000 \ 6000 H	/ 20800 H 19100	V 135001 H 124001	V 420 H	00 65 Clear
						MVR250/U/CP	M58		6000 H	19100	H 12400 I	Н	00 65 Clear, Consumer Pack
						MVR250/C/U	M58		6000 F	1 18200	H 11600 I	1	0 70 Coated
						MVR250/SP30/U	M58		6000 H	16600	H 10600 F	1	0 70 RE730 Phosphor Coating 0
360 M	ATTS -					IERGY-SAVING REP	LACEME	NT I	FOR 40	OW ME	TAL H	ALID	E
ED37	Mog	s vbu	11.5	7		MVR360/VBU/WM/HO	M59		20000	36000	23500		0 65 Clear, Watt-Miser® 👤 32
400 W	ATTS				13496	MVR360/C/VBU/WM/HO	M59	6	20000	35000	23000	400	0 70 Coated, Watt-Miser® - 32
ED37	Mog	SU	11.5	7	43828	MVR400/U	M59	6	20000 V 15000 H	36000 \ 33100 H	/ 23500 V 1 22100 H	/ 400i	0 65 Clear
						MVR400/U/CP	M59	4	20000 V		/ 23500 V	4000	0 65 Clear, Consumer Pack
						MVR400/C/U	M59		15000 H	32200 F	1 19300 H	1	D 70 Coated
CD 64						MVR400/SP30/U	M59		15000 H	28500 F	l 17100 H		70 RE730 Phosphor Coating 🗸
ED28	Mog	ΕU	8.25	5		MVR400/U/ED28	M59		15000 H	33100 H	i 22100 H) 65 Clear, Compact Bulb
1000 \	NATTO				199/9	MVR400/C/U/ED28	M59	12	20000 V 15000 H	35000 V 32200 H	23000 V 19300 H	4000	65 Coated, Compact Bulb
	VATTS	^ 11	45.53		*****	EditRoosul				_		7	
BT56	Mog	SU	15.37	9.5		MVR1000/U	M47		11000 H	100280 H	79000 H		65 Clear
BT37	Mog	ΕU	11 5	7		MVR1000/C/U MVR1000/U/BT37	M47 M47		11000 H	96600 H	73000 H		65 Coated
									9000 H	115000 H 105000 V	90000 V 82000 H	3900	65 Clear, Compact Bulb
175 W		AND	XHO	WU	LTI-V	APOR® METAL HALI	DE LAM	PS		_			
ED28		E HOR	8.25	5	18104	MVR175/HOR	M57	12	10000	15000	7700	4000	65 Clear, Position Oriented Socket Required
					18105	MVR175/C/HOR	M57	12	10000	14100	7500	3500	70 Coated, Position Oriented Socket Required
250 W	ATTS												.
ED28	Pos Mog	E HOR	8.25			MVR250/HOR	M58	12	15000	21000	10000	4200	65 Clear, Position Oriented Socket Required
					18103	MVR250/C/HOR	M58	12	15000	19700	9400	3600	70 Coated, Position Oriented Socket Required

1500 WATTS 15000 WATTS 1500 WATTS 15			ć	1:10			11.1	18 July 18	1	en North		-1 755.20							- 1- 1	4
This Color This	Bul	b Bas	e i i i	n ne		ni -	01				lasi	Cose	Avn Lif	1.17	Lumane	T.	200			1
Company Control Cont		דוות עוי	DUT	75.01	2/2/10/	UL	LLL, U	Desc.	ription	, Jay	ρe	Sec. 75.	Carlo State Con	. 20			K CRI	Additional		
Color Mog S VBU 11.5 7 90653 MYR8GO/YBU/YBTB/YWM M59 6 20000 37000 25000 4000 70 Coated 4000 70 Coated 4000 70 Coated 4000	niii	וטט חונ	PUI	AN	J XI	10	MUL	I-VAPOR	METAL F	ALIDE	43.07	100	ORIVIA.					() () ()	West of	Fe
A	500	WILL	2.—	WA	TT-I	MI:	SER	ENERGY-	SAVING R	EPI ACE	ME	IT EC	D Ann	ulu,	AFTAL	1141				
### 4005 MYRBO/CVBU/WRING M59 6 20000 37000 25000 4000 70 Coated, Wath-Miser* ### 47685 MYRBO/CVBU/STB/WM M59 6 20000 35000 26000 4000 70 Coated, Wath-Miser* ### 47685 MYRBO/CVBU/STB/WM M59 6 20000 35000 26000 4000 70 Coated, Wath-Miser* ### 47685 MYRBO/CVBU/STB/WM M59 6 20000 35000 26000 4000 70 Coated, Wath-Miser* ### 47685 MYRBO/CVBU/STB/WM M59 6 20000 35000 26000 4000 70 Coated, Wath-Miser* ### 47685 MYRBO/CVBU/STB/HO M59 6 20000 41000 2500 3700 70 Coated, Wath-Miser* ### 47685 MYRBO/CVBU/STB/HO M59 6 20000 41000 2500 3700 70 Coated, StayBright* ### 47685 MYRBO/VBU/HO M59 6 20000 41000 2500 3700 70 Coated, StayBright* ### 47685 MYRBO/VBU/HO M59 6 20000 41000 2500 3700 70 Coated, StayBright* ### 47685 MYRBO/VBU/HO M59 6 20000 41000 2500 3700 70 Coated, StayBright* ### 47685 MYRBO/VBU/HO M59 6 20000 41000 2500 3700 70 Coated ### 47685 MYRBO/VBU/HO M59 6 20000 41000 2500 3700 70 Coated ### 47685 MYRBO/VBU/HO M59 6 20000 41000 2500 3700 70 Coated ### 47685 MYRBO/VBU/WHO M59 6 20000 41000 25000 3700 70 Coated ### 47685 MYRBO/VBU/WHO M59 6 20000 41000 25000 4000 65 Clear ### 47685 MYRBO/VBU/WHO M59 6 20000 41000 25000 4000 65 Clear ### 47685 MYRBO/VBU/WHO M59 6 20000 41000 25000 4000 65 Clear ### 47685 MYRBO/VBU/WHO M59 6 20000 4000 25000 4000 65 Clear ### 47685 MYRBO/VBU/WHO M59 6 20000 4000 25000 4000 65 Clear ### 47685 MYRBO/VBU/WHO M59 6 20000 4000 25000 4000 65 Clear ### 47685 MYRBO/VBU/WHO M59 6 20000 4000 2000 3700 70 Coated ### 47685 MYRBO/VBU/WHO M59 6 20000 4000 2000 3700 70 Coated ### 47685 MYRBO/VBU/WHO M59 6 20000 4000 3000 22000 4000 65 Clear ### 47685 MYRBO/VBU/WRO M59 6 20000 38000 2000 3700 70 Coated ### 47685 MYRBO/VBU/WRO M59 6 20000 38000 2000 37000 2000 3500 65 Clear ### 47685 M98 E NOR 11.5 7 26218 MYRBOO/VBU/WRO M47 6 12000 17000 81500 V 37000 V 3000 65 Clear ### 47685 MYRBOO/VBU/WRO M47 6 12000 17000 81500 V 3700 70 Coated ### 47685 MYRBOO/VBU/WRO M47 6 12000 17000 81500 V 3700 70 Coated ### 47685 MYRBOO/VBU/WRO M47 6 12000 17000 9000 5200 800 Fosted ### 47685 MYRBOO/VBU/WRO M47 6 12000 17	ED3	7 Mo	S	VBL	J 11.	5	7 40	053 MVR360	A/DITAKAN	G Mea	****					HALI	DE			
### ### ##############################			-			•		155 MVR360	/CAIDHAAAA	W M59						00 4	200 65 C	lear, Watt-Miser		<u>-</u> 32
A							47	SAE MAVROCO	AIDII/CTD AAII					3750	00 245	00 4	000 70 C	oated, Watt-Miser		- 32
## Page 11														3600	00 2700	00 4	300 65 C	lear, Watt-Miser®.		32
ED37 Mog S VBU 11.5 7 26865 MVR400/VBU/STB/HO M59 6 20000 41000 29500 3700 70 Coated, StayBright® 49566 MVR400/CVBU/STB/HO M59 6 20000 41000 26500 4000 65 Clear, StayBright® 49566 MVR400/CVBU/M59 6 20000 41000 26500 4000 65 Clear Coated StayBright® 49566 MVR400/VBU M59 6 20000 41000 26500 3700 70 Coated StayBright® 49566 MVR400/VBU M59 6 20000 41000 26500 3700 70 Coated StayBright® 1978 M09 E VBU 8.31 7 40335 MVR400/VBU/M59 6 20000 41000 26500 4000 65 Clear Compact Bulb 1978 M09 S VBU 11.5 7 2031 MVR400/VBU/M10 M59 6 20000 41000 26500 4000 65 Clear Compact Bulb 1978 M09 E HOR 8.25 5 40201 MVR400/VBU/M10 M59 6 20000 44000 26500 4000 65 Clear Compact Bulb 1978 M09 E HOR 11.5 7 26218 MVR400/VBU/M10 M59 6 20000 44000 26500 4000 65 Clear Compact Bulb 1978 M09 E HOR 11.5 7 26218 MVR400/H0R/M0G M59 6 20000 37000 2000 3700 70 Coated 1978 M09 E HOR 11.5 7 26218 MVR400/H0R/M0G M59 6 20000 37000 2000 3700 70 Coated 1978 M09 E HOR 11.5 7 26218 MVR400/H0R/M0G M59 6 20000 37000 2000 3700 70 Coated 1978 M09 E HOR 11.5 7 26218 MVR400/H0R/M0G M59 6 20000 37000 2000 3700 2000 3700 70 Coated 1978 M09 E M09	400	WATT	2				4/0	OD INIANTON	C/VBU/STB/V	VM M59		6 20	000	3500	00 2600	00 40	000 70 C	oated, Watt-Miser®	,	32
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י מממו	WATTS					402/4	MPR400/C/VBUXHO/PA	M135	6	20000	40000	28000	3700	70	Coated, Protected	
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						11340	LU70/D/MED	S62	6	24000 +	5950	5050		22 Diffuse
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						-	LU70/CP	S 62		24000 +		5450	1900	22 Clear, Consumer Pack
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						13251	LU100/D/MED	S54		24000 +		7920		22 Diffuse
ED23.5	Mog	0	U	7.75	5	44037	LU100	S54	12	24000 +	9500	8550		22 Clear
						26427	LU100/CP	S54	4	24000 +	9500	8550	2000	22 Clear, Consumer Pack
						44038	LU100/D	S 54	12	24000 +	8800	7920		22 Diffuse
150 W	ATTS											100		
B17	Med	0	U	5.75	3.5	13252	LU150/MED	\$55	6	24000 +	16000	14400	2000	22 Clear
						26424	LU150/MED/CP	S55		24000 +		14400		22 Clear, Consumer Pack
						13253	LU150/D/MED	S55		24000 +		13500		22 Diffuse
ED23.5	Mog	0	U	7.75	5	44043	LU150/55	\$55	12	24000 +	16000	14400		22 Clear
						26429	LU150/55/CP	\$55	4	24000 +	16000	14400		22 Clear, Consumer Pack
							LU150/55/D	\$55	12	24000 +	15000	13500		22 Diffuse
ED28	Mog	0	U	8.31	5	44243	LU150/100(ED28)	S56	12	24000 +	15000	13500	2000	22 Clear
200 W	ATTS													
ED18	Mog	0	U	9.75	5.75	5 44206	LU200	S6 6	12	24000 +	22000	19800	2100	22 Clear
250 W	ATTS												2100	22 0/60/
ED18	Mog	0	it	9 75	5 79	44047	111250	S 50	12	24000 +	28000	27000	2100	20.01
	wog	J	0	3.73	J.7		LU250/CP	S50		24000 +	28000	27000 27000		22 Clear
D28	Mog	0	U	9	5		LU250/D	S50		24000 +		23400		22 Clear, Consumer Pack
310 W	_	Ŭ	•	•	•	11001	20200,0	330	12 1	24000 +	20000	23400	2100	22 Diffuse
D18	Mog	n	н	0	c 70	44050	111240	0.63						
	•	0	U	9	3./3	44053	LUSIU	S 67	12 2	24000 +	37000	33300	2100	22 Clear
100 W														
ED18	Mog	0	U	9		44054		S51	12 2	24000 +	51000	45000	2100	22 Clear
							LU400/CP	S51		24000 +	51000	45000	2100	22 Clear, Consumer Pack
D37	Mog	0	_	11.31	7		LU400/D	S51		24000 +	47500	42750	2100	22 Diffuse
7	Rx7s	0 1	HOR	10.12		30244	LU400/TD	S51	10 2	24000	43000	37300	2000	25 Clear, Double-ended,
יאו חח	ΛΤΤΟ													Horizontal Burn ±20°
00 W														
15	Mog	0 (J	11.06	6.62	271 87	LU600/T	\$106	12 1	2000 +	90000	81000	2000 2	22 Clear
	2TTA													
50 W	1110													

																	11/11
			LET			LCL (Descriptio	oa	TVn	st Ca	se Ava	ited Life	Lumens ial de	Col Tem		
Щ	JCALO)X® l	ligh	PRE	SSU	RE S	OD	IUM LAMI	PS (con	TINUED)		-	Julian L	- ANT	Ager	STORY MUNICIPALITY	Footno
	00 W									ì		w	##*. 				•
E25		Mog Rx7s	0 U		5.06 3.18			LU1000/ECO	<u> </u>	S52) + 14000		0 21	00 22 Clear	
-								LU1000/TD		S52	10	24000	13750	0 11820	0 200	00 25 Clear, Double-ended,	
ST	AND	BY L	DNGL	.IFE	LUC	ALO	K® L	AMPS								Horizontal Burn ±20°	
70	WAT	TS										-		4	_		
	23.5 A D WA	-	0 U	7	7.75	5 1 !	9264	LU70/SBY/XL	•	S62	12	40000	640	5050	200	0 22 Clear, Standby Longlife Dual Arc Tube	,
	3.5 N		0 U	7	.75 5	. 40	200	111100/083/04									
		•	0 0	,	.15 ;) [3	203	LU100/SBY/X	L	S54	12	40000	95 0 (8190	200	0 22 Clear, Standby Longlife,	
	WA1															Dual Arc Tube	
ED2 200	3.5 M WAT	log TS	0 U	7.	.75 5	i 19	266	LU150/55/SBY	//XL	\$55	12	40000	16000	14000	2000) 22 Clear, Standby Longlife, Dual Arc Tube	
ED18		og	0 U	9.	75 5	.75 23	431 1	LU200/SBY/XL		S66	12	40000	21500	18150	2000	22 Clear, Standby Longlife, Dual Arc Tube	
ED18			0 U	9.	7 5 5.	.75 192	270 L	.U250/SBY/XL	•	S50	12	400 00	27500	24750	2000	22 Clear, Standby Longlife,	
400	WAT	TS														Dual Arc Tube	
ED 18	0 WA 1	-	0 U	9.7	75 5.	75 192	72 L	U400/SBY/XL		S51	12 4	10000	50000	45000	20ó0	22 Clear, Standby Longlife, Dual Arc Tube	
E25	Mo	og	0 U					U1000/SBY/XI		S52		0000	127000	115000	2100	22 Clear, Standby Longlife, Dual Arc Tube	
ECO	LUX®	NC	NON-	CYC	LIN	G HI	GH	PRESSURE	SODIL	JM LAMP	S (TC	LP C	OMPLI	ANT		Dual Are Tube	
. 70 1	77111	3						_	\	,			•		\$. T		
	.5 Mo WATT	-) U	7.7	5 5	146	72 LI	J70/ECO/NC		S 62	12 2	4000	6300	5670	1900	23 Clear, Non-Cycling, TCLP Compliant	
	5 Mo		U	7. 7 !	5 5	1467	3 LU	100/ECO/NC	/ in	\ _{S54}	12 24	1000	10500	9450	2000 2	23 Clear, Non-Cycling,	
150 \	VATT	S							11/2	Do to						TCLP Compliant	
ED23.5	•	-	U	7.75	5	4039	0 LU	150/EC0/NC	(h	30 h	√ _{12 24}	000	16000	14400	2000 2	3 Clear, Non-Cycling, TCLP Compliant	
	VATT:				_					in an	1					TOET COMPRESE	
ET18 250 V	Mog VATT:		U	9.75	5.75	4505	9 LU:	200/ECO/NC		S66 .	20 24	000	22000	19800	2100 2	2 Clear, Non-Cycling, TCLP Compliant	
ED18	Mog	0	U	9.75	5.75	14674	LUZ	250/ECO/NC	\ \ \	S50	12 240	000	29000	27500	2000 30	Clear, Non-Cycling,	
400 V)							TCLP Compliant	
ED18	Mog	0	U	9.75	5.75	14675	LU4	00/ECO/NC	<u>ノ</u>	S51	12 240	100 (54000	4860 0	2100 30	Clear, Non-Cycling, TCLP Compliant	

				Order			ANSI Ballast	Cas	Rated e Avg. Li		umens	Color 'Temp.		dditional		
Bulb Base		OP MOL		Code	Description	TOLD OF	Туре	Oty	Hours			K		formation		Footnot
70 WATTS	illigh r	HE99U	ii-	וועטפ	JM LAMPS (I CLP CU	MPLIAN	VI)			_					
ED23.5 Mog 100 WATTS	0 U	7.75	5	45760	LU70/ECO	Ş	S62	12	24000 +	6400	5450	1900	22 Clear	, TCLP Compliant		
ED23.5 Mog 150 WATTS	0 U	7.75	5	45761	LU100/ECO	petin	S54	12	24000 +	9500	8550	2000	22 Clear	, TCLP Compliant		
ED23.5 Mog 200 WATTS	0 U	7.75	5	45762	LU150/55/ECO	B	S55	12	24000 +	16000	14400	2000	22 Clear,	TCLP Compliant		
ED18 Mog 250 WATTS	0 U	9.75	5.7	5 45763	LU200/ECO	RE	S66	12	24000 +	22000	19800	2100	22 Clear,	TCLP Compliant		
ED18 Mog 400 WATTS	0 U	9.75	5.79	5 45764	LU250/ECO	ra Car	S50	12	24000 +	28000	27000	2100	22 Clear,	TCLP Compliant		
ED18 Mog	0 U	9	5.75	5 45765	LU400/ECO X	(/6	S51	12	24000 +	51000	45000	2100	22 Clear,	TCLP Compliant		
	CALO	K® HIGH	1 PF	RESSI	JRE SODIUM	LAMPS										
70 WATTS B17 Med 150 WATTS	0 V	5.5	3.5	16611	LU70/DX/MED		S 62	6	10000	3800	3040	2200	65 Clear,	Improved CRI	0	
B17 Med	0 U	5 75	3.5	18094	LU150/DX/MED		S54	a	15000	10500	9135	2200	CE Class	Immanued CDI		
ED23.5 Mog 250 WATTS	0 U				LU150/55/DX		S55		15000	10500	9135			Improved CRI Improved CRI	0	
ED18 Mog 400 WATTS	0 U	9.75	5.75	11785	LU250/DX		S50	12	15000	22500	20700	2200	65 Clear,	Improved CRI	o	
ED28 Mog	0 υ	9			LU400/DX		S51		15000	37400	34400	2200	70 Clear,	Improved CRI	0	
		RESSU	RE S	ODIU	M LAMPS (I	MERCUR	Y RETRO	FIT)							
150 WATTS ED28 Mog	0 U	9	5	49943	LUH150/EZ		Н39	12	13000	12500	12000	1900		Energy-saving t for 175W Mercu	-≠ rv	
215 WATTS ED28 Mog	0 U	9	5	49939	LUH215/EZ		H37	12	12000	20200	18600	1900	22 Clear, I	Energy-saving		
360 WATTS BT37 Mog	0 U	11.31	7.12	18012	LUH360/EZ		H33	6	24000	45000	40500	2100		: for 250W Mercu Energy-saving	iy ·=	
SOX LOW P	RECCI	IRE SO	וווח	DAIA	MDC								Retrofit	for 400W Mercu	гу	
18 WATTS	IILOO	JNE 30	DIO	IVI LA	IVIFO									. ———		
T16 BY220	J E	8.5	5.37	21294	SOX18		L69	16	18000	1800	1570	1800		lorizontal Burn Vertical Base Up	±15°	
35 WATTS																
T16 BY220 55 WATTS	I E	12.25	7.25	21296	SOX35		L70	16 1	8000	4600	40 00	1800		lorizontal Burn Vertical Base Up	±15°	
T16 BY22c	Ε	16.75	9.5	21297	SOX55		L71	16 1	8000	7650	6655	1800		orizontal Burn Vertical Base Up	±15°	
90 WATTS	-													·		
T21 BY22d	<u>E</u>	20.75 1	1.5	21298	SOX90		L72	9 1	6000	12750	11095	1800	O Clear, H	orizontal Burn ±2	0°	

•	-																		1 10	
			51			0	rder		ANS Balla	l st Ca	ica A.	laled		nens		or -	(garata) garata			
	ulb Be	_				LCL C			Type	a	ty h	lours	laitial :	Me	en K	p.' ∵. CF	Addition			
S	DX FOM	Pli	18	SURE	SO	DIUN	LAMPS (C	ONTINUED)				PARTIE .	Area we will fin	n' unge	and the		T. M. T. HINTHIAL	V# (5): (6.7)		ootno
13	IS WAT	rs							,,			(Y., Ye			1,.1.1					
T2	1 BY	22d	E	3	0.5	16.37 21	299 SOX135		L73		9 160	00 00	2000	1014	(ii e .					
M	ERCUR	/ LA	M				As-		270	_	3 1901	JU 24	2000	1914	0 18	00 0	Clear, Horizo	ontal Burr	1 ±20°	
	/50 WA				_	-														
B1.		-	ο ι		. 12	2 12 44	460 UD40#60	Wan an					· : ' · . · ·				*			
D 1.	, ,,,,	u	0 (, ;). 12	3.12 12	460 HR40/50D	IX45-46	H45		600		140 V		V 390	0 50	40W on H45	Ballast,		
75	WATTS	`							H46		600	IU H I	5 7 5 H	1250	H		50W on H46	Ballast, D	eluxe Wh	nite
B17	7 Me	d	0 U	=	43	35 12	461 HR75DX4;	,	1140	_										
10	D WATT		•		. 40	0.3 12	101 IIN/35/A4;	,	H43	5	1600	0 2	700	2250	390	0 50	Deluxe White	;		
A23			0 U		42	2 5 4 9	154 UD400100													
, 120	,,,	•	U	J	.43		164 HR100A38 167 HR100DX3		H38		1800		700	2400	570	0 15	Clear			
B17	Med	j	0 U	5	43		113 HR100DX3		H38		1800		000	2600			Deluxe White			
ED2	3.5 Mog		0 U				71 HR100A38		H38 H38		18000		000	2600			Deluxe White			
							75 HR100DX3		H38		24000		350	2500) 15 (
							37 HR100DX3		H38		24000)00)00	2600			eluxe White			
R40	Med		0 U	7			38 HR100RFL		H38		24000			2600 2000	5700	150 1	eluxe White,	Consume	er Pack	
						364	95 HR100RDX	FL38	H38		24000			2050	3700	50 0	leflector Floo leluxe White,	0, 48° Bea	am Sprea	id
175	WATTS	•											••	2000	3300	1	40° Beam Spi	neriectoi read	r WFL,	
									•								т- сстл. ор.	000		
ED28	B Mog	(U	8.	25 5		48 HR175A39		H39	12	24000	+ 785	50	6830	5700	15 C	lear			
							40 HR175A39/		H39		24000			6830			lear, Consum	er Pack		
							52 HR175DX39		H39	12	24000	+ 780	00 (6800	3900	50 D	eluxe White	DI I GER		
R40	Med	n	U	7			39 HR175DX39 58 HR175RFL3		H39		24000			680 0	3900	50 D	eluxe White,	Consume	r Pack	
		•	•	•		2400	ini/onrlo	9	H39	12 2	24000	+ 570	00 4	4800	5700	15 CI	ear, Reflecto	r Flood.		
						3302	6 HR175RDXF	L3 9	H39	12 2	24000	+ 570	10 /	4350	2000	<u> 40</u>	Beam Spre	ad		
	14										. 1000	T 3/0	10 4	+730	3900	30 DE	eluxe White, I 0° Beam Spre	Reflector	WFL,	
	Mog	U	U	7.5		3644	5 HR175RFL39)/M	H39	12 2	4000	÷ 570	0 4	1800	5700	15 Ci	ear, Reflector	Flood		
250	WATTS															40	Beam Sprea	₃d		
ED28	Mog		U	0.2		0400														
1020	Wiby	U	υ	6.2	5 5		8 HR250A37		H37	12 2		11000	0 8	250	5700	15 Cla	ar			
400 1	WATTS					3212	7 HR250DX37		H37	12 2	4000 +	11200	0 8	400	3900	50 De	luxe White			
BT37	Mog	٥		110		2204														
ED37	Mog	0		11.31			HR400DX33/	ВТ	H33		4000 +			400	3900 !	iO Del	uxe White			
-507	mog	U	U	11.3	,		HR400A33 HR400DX33		H33		1000 +			400	5700 1					
R52	Mog	0	U	11.75			HR400RDX33		H33			22600					uxe White			
	_				•	00073		•	H33	6 24	1000 +	20800	134	100	3900 5	0 Ref	lector, Deluxe	e White,	·····	
R60	Mog	0	U	10.12		33938	HR400RDXFL	33	H33	6 24	000 +	15500	90	50	2000 E		Beam Sprea			
T16	84		11					****				10000	03	550	2200 2	u nen Cles	ector WFL, D or Face, 110°	eluxe Wh	nite,	
	Mog	0	U	11	7	14873	H400A33/T16		H33	6 12	000	20000	182	00	5700 1	5 Clea	IF	Deain Sh	reau	
	WATTS																			
BT56	Mog	0	U	15.06	9.5		HR1000A36		H36	6 240	000 +	57000	2850	00	5700 15	Clas				
						24191	HR1000DX36		H36	6 240		58000	2900				xe White		***********	
CAF	CARR				9.3	/ 3 2733	HR1000DX34		H34	6 160		58300	2920		3900 50	Deli	xe White		28	
	T-GARD	w W	H	CURY	LA	IMPS													40	
	VATTS														=	-				
ED28	Mog	0 ι		8.25	5	43391	HT175DX39		H39	12 160	00	7800	600	n -	000 50	n. 1	144.			
										- 100		, 000	680	iu 3	300 50	uelu:	ke White			
			_																	

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4.00		建			7.		Ordel		ANSI Ballasi		Ra	ted		Col			¥
							Code	aug Description	ypa ypa	al	y A. Ho	urs Initi	Lumens el Mea	Tem q K	p. Additional CRI Information		Foo
	T-GAI VATT		ME	RCU	RY	LA	MPS	(CONTINUED)	2.0	•	w _i				the state of the s		
ED37	Mog	ı	υO	11	.31	7	4336	3 HT400DX33	H33		5 24000	2260	14400	30	00 50 Deluxe White		
E-Z	MERC	SE	LF-I	BALL	A	STE	D LA	MPS (INCANDESC					11100	- 00	no so peiaxe willia	-	
160 \	NATTS	,				. 1	ï	ere en	6		ige in dee	erry v ?	2000	167,	Topics and the second		
ED24	Med		ט כ	7		4.5	45178	B HSB160/M	0	24	12000	2300	1600	200	10 E0 Del 14/1-1 400		
250 N	NATTS	;							•	•	. 12000	2000	1000	330	00 50 Deluxe White, 120	V	9
ED28	Med	(U	8.	5	5.18	45174	HSB250M	0	12	12000	5000	3750	390	0 50 Deluxe White, 120	V	٥
	Mog) U	8.	5	5.18	45176	HSB250	0		12000			390	0 50 Deluxe White, 120	<u>v</u> v	9
450 V	VATTS	;													2	•	J
BT37	Mog) U			7.37	40122	HSB450	0	6	16000	9100	8280	390	0 50 Deluxe White, 120	٧	9
	VATTS																
R57	Mog	C	U	12.	75	8.37	44012	HSB750R/120	0	6	16000	14000	11200	390	0 50 Deluxe White, Ref	ector	9
FYP	RT LA	MP	c						_	_					Flood, 120V, 130° Be	am Spri	ad
	AL HAI				,	-			· · · · · · · · · · · · · · · · · · ·	. "	$\vec{r} = a^{\dagger}$						
ED17	E27		- VBI					MXR32/C/VBU/0/27		٠.			. 7	r			
BD17	E27		U					MXR100/U/27	M100 M90		10000	2400 9000	1700 6200		70 Coated, Protected		ML
				•				MXR100/C/U/27	M90		15000	8500	5900		70 Clear 70 Coated	····	
ED28	E40	E	U	8.2	25	5	47762	MVR175/U/40	M57		10000				65 Clear	···	14
	Mog	E	U	0.	25	<u> </u>	A7752	MVR175/C/U/40	1467		6000						
	Wiby	L	J	0.4		J	41/03	WW N 175/G/U/40	M57	12	10000 6000				70 Coated		14
								MVR175/SP30/U/40	M57	12	10000 6000	V 12000	V 7600 V	3000	70 RE730 Phosphor Coa	iting o	14
								MVR250/U/40	M58		10000 \ 6000 I	H 19100 I	/ 13500 V H 12400 H		65 Clear		14
								MVR250/C/U/40	M58			1 18200 I	/ 13000 V H 11600 H		70 Coated		14
ED37	E40	c	U	11 5				MVR250/SP30/U/40	1470			1 16600 F	1 10600 H		70 RE730 Phosphor Coa	ting Ø	14
2037	L40	J	U	11.5	7	, ,	13307	MVR400/U/40	M59		20000 V 15000 F	/ 36000 \ 33100	/ 23500 V I 22100 H	4000	65 Clear		14
						4	3908	MVR400/C/U/40	M59	6	200 00 V		23000 V	3700	70 Coated		14
						_		MVR400/VBU/40	M59	6 2	20000	41000	26500	4000	65 Clear, Vertical Base Up ±15°		
						_		MVR400/C/VBU/40	M59		20000	41000	25000	3700	70 Coated, Vertical Base Up ±15°		
						-		MVR400/VBU/STB/40	M59		20000	41000	31000		65 Clear, StayBright®		
E37	E40	٧	U	11.5	7			MVR400/C/VBU/STB/40 MVR400/SP30/U/40	M59 M59		0000 V	41000	29500		70 Coated, StayBright		
									17133		5000 V		18600 V 17100 H	3000	70 RE730 Phosphor Coati	ng 🥏	14
ED37	Mog			11.5				MVR400/SP30/VBU/40	M59		0000	34000		3200	70 RE730 Phosphor Coati Vertical Base Up ±15		
3750	EAC			11.5				MPR400/VBU/0/40	M59		0000	40000		3400 (55 Clear, Vertical Base Up ±15°, Shrouded A		32
BT 56	E40	S	U	15.37	9.			WVR1000/U/40	M47	1	1000 H	108000 V 100280 H	79000 H		5 Clear		
						41	1829 1	MVR1000/C/U/40	M47	6 15 11	5000 V 1000 H	105000 V 96600 H	80000 V 73000 H	3700 6	5 Coated		

Bulb		IFT OF			Order	and the second second	ANSI Ballast	Cas	Rate e : Avg. L	ife zet 1	umens - :	Color Temo	
2 44 4 1 1 2 1 4		LET OF AMPS (co				D os cription	Туре	Oty	Hou	e a laitle	l Mean	' K	CRI Information Foolnote:
		HIGH P				ILIAA				J 4 1 4			
E21	E27	0	11200	OI:			1 = 12 1					in to de the	M PANGHAR A TANGKAT TERMINANG TERMINANG TERMINANG TERMINANG TERMINANG TERMINANG TERMINANG TERMINANG TERMINANG PERMINANG
ED23.5	E40	0 U	7 75	_		LU70/90/27			24000 -		5400	1900	22 Clear
LD 23.3	Mog		7.75			LU100/100/D/40		12	24000 +	9200	7820	2000	22 Diffuse
T14.5	E40	0	7.75			LU150/55/40	S55	12	24000 +	16000	14400	2000	22 Clear
ED28	E40	0				LU150/100/40		12	24000 +	15000	13500	2000	22 Clear
ED18	E40		0.75			LU150/100/D/40		12	24000 +	14000	12600	20 0 0	22 Diffuse
ED28	E40	0 0				LU250/40	S50	12	24000 +	28000	27000	2100	22 Clear
ED18	E40	0 U	9_	5		LU250/D/40	S50	12	24000 +	26000	23400	2100	22 Clear
ED37	E40	0 U	9	<u>5.</u>		LU400/40	S51	12	24000 +	51000	45000	2100	22 Clear
E25	E40	0 0	11.31			LU400/D/40	S51	6	24000 +	47500	42750	2100	22 Diffuse
T18	E40	0 U	15.06	8.		LU1000/40	S52	6	24000 +	140000	126000	2100	22 Clear
		0	• • • • •		44247	LU1000/T18/40		6	24000 +	140000	126000	2100	22 Clear
E-Z LU	IV. L	DUALUX	" HIG	H	PRESS	URE SODIUM	(MERCURY RET	ΓRO	FIT)				
ED28	E40	0 U	9	5		LUH215/D/EZ/40			12000	20200	18600	1900	22 Diffuse, Energy-saving
MERC	URY												Retrofit for 250W Mercury
ED37	E40	0 U			32294	HR400DX33/40	H33	6 2	24000 +	22600	14400	3900 5	50 Deluxe White

FOOTNOTES

- # Footnote
- 9 Do not use this lamp in fixtures designed for less than rated lamp wartage 14 LHe shows is for vertical $\pm 15^\circ$ operation.

- 14 Life shown is for vertical ±15" operation.

 16 Approximate lumen ratings at 45" burning position: Initial 145,000. Mean 124,000.

 17 Rated life based on 5 or more burning hours per start.

 28 Use only 1000-wast H12 or H24-type ballasts. Do not use on 1000-wast H36-type ballasts.

 30 Higher life rating refers to operation @ 120 hrs. on / 1 hr off cycle. Lower life rating refers to operation @ 11 hrs.

 27 Life off cycle. on / 1 hr. off cycle

- 32 Lamp will run at 400-watts when used on a linear reactor ballast
 33 Rested life based on 7 hours per start.
 38 Requires a non-ANSI designated ballast with a special, add-on metal halide ignetor Contact your local GE Representative for a list of approved beliasts and ignitors of commental halide signet SUV Control is a new, quartz material that offectively cuts UVB and UVC radiation 41. Must use on thermally protected ballast.

- 42 Approximate lemen ratings at 45° burning position: Initial 160,000. Mean 145,000
 43 When operated on a 120 hrs. cycle (minimum), lamp life rating may be extended by up to 50% based on

GENERAL INFORMATION

FIXTURE REQUIREMENTS - LAMP ENCLOSURE TYPE

HID lamps have fixture requirements that must be followed. The following three codes identify the appropriate fixture for a particular lamp. Lamps having an "O" code can be operated in an "Open or Enclosed" fixture. Lamps with a "S" code can be used in open fixtures only if operated in a vertical ±15° burn position. Lamps in all other burn positions must be suitably enclosed.

- O = Open or Enclosed Fixtures
- E = Enclosed Fixtures Only
- S = Lamps operated in a vertical position (Base Up or Down), ±15°, can be used in an open fixture. Lamps burned in any other orientation must be used in "enclosed fixtures only".

Use in Enclosed Fixtures. "Enclosed" fixture means a fixture suitably enclosed and designed to contain fragments of hot quartz or glass (up to 1100°C) per UL Standard #1572 (if in doubt, contact your fixture manufacturer).

Use In Open Fixtures. For lamps operated in the vertical position ±15° that are not designated "Enclosed Fixtures Only," lamp may be used in an open or enclosed lighting fixture depending upon the application and operating environment. For example, if the lamp is located near combustible material or in an area which is unoccupied for extended periods, an enclosed fixture which can contain fragments of hot quartz or glass is recommended. For more information, contact your fixture manufacturer.

PROTECTION OF BULBS FROM MOISTURE

Outer bulbs of HID lamps are made of heat-resistant glass, designed to have strength and thermal-shock-resistant characteristics suitable for normal applications in typical luminaries. However, shielding of lamps must be provided to avoid bulb breakage that could result from direct contact with liquids (such as water) during operation.

RATED AVERAGE LIFE

Values are based on laboratory tests of a large number of representative lamps under controlled conditions, including operation at 10 hours per start on ballasts having specified electrical characteristics. Individual lamps or groups of lamps may, of course, vary from the Rated Average Life shown. Lamp operating conditions can also affect life. Where Rated Average Life is less than 24,000 hours, it is a MEDIAN value of life expectancy; that is, the total operating time at which, under normal operating conditions, 50% of any large group of initially installed lamps is expected to be still burning. Where Rated Average Life is 24,000+ hours, 57% of lamps are expected to be still burning at 24,000 hours. For cost-of-light calculations involving these lamps, if an estimated operating time is required at which 50% of the lamps will still be burning, a value of 28,500 hours is suggested. At burning cycles shorter than 10 hours per start, the median life will be shortened as follows:

5 hrs/start: approx. life 75% of rating 2½ hrs/start: approx. life 56% of rating 1¼ hrs/start: approx. life 42% of rating

LUMENS – LUMENS LISTED ARE REFERENCE LUMENS

Rated average lamp lumens are obtained under controlled laboratory conditions in a prescribed burning position. Initial Reference Lumen refer to the lamp lumen output after 100-hours burning. Mean Reference Lumens refer to the lamp lumen output at the mean lumen point during lamp life. The mean lumen point occurs at 50% rated life for HPS and mercury lamps, and at 40% rated life for metal halide lamps Lamp performance on typical systems under typical service conditions will vary from the reference lumen ratings.

High Intensity Discharge lighting systems are subject to a wide range of variations which may affect final lighting levels. As a result, lamp performance on actual systems may vary due to lamp orientation, ambient temperatures, ballast variations, line voltage and other reasons Care must be taken when choosing a system to consider how these changes can affect your light levels both initially and at the mean lumen point.

BALLASTS

HID lamps (except E-Z-Merc®) require auxiliary ballast equipment designed to produce proper electrical values. Actual lamp watts may vadepending on ballast characteristics. For total system watts, add nomin ballast watts.

All Lucalox[®], Mercury, and Metal Halide lamps (except I-Line) will start at ambient temperatures of -22°F (-30°C). I-Line Multi-Vapor[®] will start at ambient temperatures of 5°F (-15°C) when used on approximercury ballasts.

START CHARACTERISTICS

Full light output does not occur immediately when power is applied. Instead, there is a time delay for the lamp to reach 90% total light output. The starting delay for High Pressure Sodium is 3-4 minutes, for Metal Halide 2-5 minutes, and for Mercury 5-7 minutes.

RESTART CHARACTERISTICS

With a power interruption of a half cycle or more, the arc will extinguish. When power is immediately reapplied, full light output does not occur immediately. For HPS lamps there is a delay of 1 minute to reach 90% total light output; however, Lucalox® LU1000 requires 2 minutes and E-Z Lux® lamps require 3 minutes to reach 90% total light output. For most Metal Halide lamps, including CMH¹¹, when the power is immediately reapplied, there will be a delay of 10 to 15 minutes before the lamps reach the 90% light output level. PulseArc™ lamps restrike in <4 minutes. The restart delay for mercury lamps is 3 to 6 minutes to reach 90% total light output.

OPERATING POSITIONS AND CODES

Mercury and High Pressure Sodium lamps may be operated in any burn position and will still maintain their rated performance specifications. Metal Halide and Low Pressure Sodium lamps, however, are optimized for performance in specific burn positions, or may be restricted to certain burn positions for safety reasons.

U = Universal burning position

HBU = Horizontal -15° to Base Up

HBD = Horizontal +15° to Base Down

HOR = Horizontal ±15°

H45 = Horizontal to ±45° only

VBU = Vertical Base Up ±15°

VBD = Vertical Base Down ±15°

If no special burn position is noted, the burn position is universal.



GENERAL INFORMATION (CONTINUED)

HID COLOR

The color temperature and CRI listed in the tabular data are for reference purposes only. All high intensity discharge lamps exhibit some degree of lamp to lamp color variation and shift over life. These characteristics can be increased based on choice of fixture, ballast, burning position, and ambient conditions. Color variation can be greater than normal during the initial 100 hours of burning. Where color consistency is important, consider using ConstantColor® CMH¹m for better performance (page 3-9). Contact your local GE Lighting representative for more information.

EXPORT BASE LAMPS (/27 AND /40)

Export only lamps have a non-domestic (non-U.S.) base and are not intended for use in the United States due to potential shock hazard. The lamps are identified by "/27" or "/40" at the end of the lamp description and comply with electrical characteristics defined by IEC standards.

OPERATING NOTES

E-Z LUXº LAMPS

These high pressure sodium lamps should be operated only on certain mercury ballasts, as indicated below.

LUH110/EZ: use only with the following types of 125-watt mercury ballasts: high-reactance lag-type autotransformers or 220-volt or greater reactors.

LUH150/EZ: use only with the following types of H39 175-watt mercury ballasts: high-reactance lag-type autotransformers or 240-volt and 277-volt reactors. Do not use with CW (lead-type) or CWA ballasts.

LUH215/EZ: use only with the following types of H37 250-watt mercury ballasts: high reactance lag-type autotransformers or 240-volt and 277-volt reactors. Do not use with CW (lead-type) or CWA ballasts.

LUH360/E2: use only with the following types of H33 400-watt mercury ballasts: high-reactance lag-type autotransformers, reactors, CWA auto regulators or CW regulators.

MXR32 METAL HALIDE LAMP AND ELECTRONIC BALLAST

MXR32 lamps must be operated on GE Lighting's special, high power factor electronic ballast, HAL32/120 (page 3-8). Outside dimensions for the ballast are 94" long, 34" wide and 14" high.

SAF-T-GARD® MULTI-VAPOR® AND SAF-T-GARD® MERCURY LAMPS

Caution: If the outer glass envelope of a Saf-T-Gard® lamp is broken, the arc tube will self-extinguish, but the supporting structure will still be electrically connected. Be sure power is off and the lamp has cooled before removing the lamp to avoid possible electrical shock from contact with the arc tube support and to avoid risk of burn from the hot arc tube.

ARCSTREAM™ METAL HALIDE LAMPS

Arcstream™ tubular-shaped lamps must be used in suitably-enclosed fixtures with UV-absorbing cover glass. Enclosed fixtures must be capable of containing fragments of hot quartz or glass (up to 1100°C) in the unusual event of the outer bulb shattering. Also see complete Warning and Caution Notices on metal halide lamps.

WARNING NOTICES

THE FOLLOWING WARNING NOTICES MUST BE COMPLIED WITH TO HELP AVOID POSSIBLE LAMP RUPTURE. General Electric Company will not be responsible for poor lamp performance, personal injury or property damage resulting from failure to follow these instructions.

HID LAMPS - GENERAL

WARNING

Most HID lamps are constructed of an outer bulb with an internal arc tube made of quartz. The arc tube operates under high pressure at very high temperatures - as high as approximately 1100°C. The arc tube and outer bulb may unexpectedly rupture due to internal causes or external factors such as a system failure or misapplication.

An arc tube rupture can burst and shatter the outer glass bulb resulting in the discharge of glass fragments and extremely hot quartz particles (as high as 1100°C). There is a risk of personal injury, property damage, burns and fire.

Some lamps are position-sensitive and must only be operated in specified burning positions (see "Additional Information" column in this catalog) with compatible electrical equipment in the types of fixtures prescribed in "Lamp Enclosure Type" on Page 3-22 of this catalog.

In addition to the general warnings above, there are specific warnings for the HID lamp types listed below.

Metal Halide Lamps

Fixture lens/diffuser material must be able to contain fragments of hot quartz or glass (up to 1100°C). If you do not know whether your fixture can safely withstand an arc tube rupture, contact your fixture manufacturer.

In continuously-operating systems (24 hours/day, 7 days/week), turn lamps off once per week for at least 15 minutes. FAILURE TO COMPLY INCREASES THE RISK OF RUPTURE.

Relamp fixtures at or before the end of rated life. Beyond rated life, light output diminishes while energy consumption and risk of rupture increase.

High Pressure Sodium Lamps

This is a vacuum jacket lamp and may implode if broken. As a precaution, wear safety glasses and gloves when installing or removing lamp. High pressure sodium lamps are not position-sensitive and may be operated in any burning position.



WARNING NOTICES (CONTINUED)

Mercury Lamps

Fixture lens/diffuser material must be able to contain fragments of hot quartz or glass (up to 1100°C). If you do not know whether your fixture can safely withstand an arc tube rupture, contact your fixture manufacturer. Relamp fixtures at or before the end of rated life. Beyond rated life, light output diminishes while energy consumption and risk of rupture increase. Mercury lamps are not position-sensitive and may be operated in any burning position.

Low Pressure Sodium Lamps

These lamps contain sodium which will ignite when exposed to water. If lamps are not disposed of properly, there is a risk of fire in the disposal vessel. Consult GE for disposal instructions.

LAMP ENCLOSURE TYPE

Use in Enclosed Fixtures. "Enclosed" fixture means a fixture suitably enclosed and designed to contain fragments of hot quartz or glass (up to 1100°C) in accordance with UL Standard #1572 (if in doubt, contact your fixture manufacturer).

Use In Open Fixtures. For lamps operated in the vertical position $\pm 15^\circ$ that are not designated "Enclosed Fixtures Only," lamp may be used in an open or enclosed lighting fixture depending upon the application and operating environment. For example, if the lamp is located near combustible material or in an area which is unoccupied for extended periods, an enclosed fixture which can contain fragments of hot quartz or glass is recommended. For more information, contact your fixture manufacturer.

IMPORTANT NOTICE

In accordance to Federal Regulations (21 CFR 1040.30), the follownotice applies to all lamps in the HID section of this catalog except Pressure and Low Pressure Sodium Lamps.

"WARNING: This lamp can cause serious skin burn and eye inflamn from shortwave ultraviolet radiation if outer envelope of the lamp broken or punctured, and the arc tube continues to operate. Do n where people will remain for more than a few minutes unless adeq shielding or other safety precautions are used. Certain types of lam that will automatically extinguish when the outer envelope is broke punctured are commercially available."







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27219 - MVR750/VBU/PA

GE Multi-Vapor® PulseArc® Quartz Metal Halide BT37



GENERAL CHARACTERISTICS

Lamp type

High Intensity Discharge -

Quartz Metal Halide

Bulb

BT37

Base

Mogul Screw (E39)

Bulb Finish

Clear

Wattage

750

Rated Life

16000 hrs

Bulb Material

Hard glass

Lamp Enclosure Type

Open Fixture-Restricted

(LET)

Position (S-Rated)

PHOTOMETRIC CHARACTERISTICS

Initial Lumens

82000

Mean Lumens

60000

Nominal Initial Lumens

109

per Watt

Color Temperature

4000 K

Color Rendering Index

65

(CRI)

Effective Arc Length

2.677160 in (67.999864 mm)

ELECTRICAL CHARACTERISTICS

Burn Position

Vertical base up ±15°

Open Circuit Voltage

(peak lead ballast) (MIN)

466 V 330 V

Open Circuit Voltage

(RMS lag ballast) (MIN)

Warm Up Time to 90% (MIN)

2 mln

Warm Up Time to 90%

5 min

(MAX)

(MIN)

Hot Restart Time to 90% 10 min

Hot Restart Time to 90% 15 min

(MAX)

DIMENSIONS

Maximum Overall Length

11.5000 in (292.1 mm)

(MOL)

Bulb Diameter (DIA)

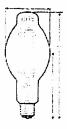
Light Center Length (LCL)

4.625 in (117.4 mm) 7.000 in (177.8 mm)

PRODUCT INFORMATION

Product Code

27219







View Larger

ADDITIONAL RESOURCES

Catalogs

Testimonials

Brochures

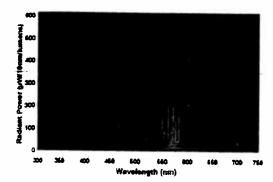
Application/Segment Brochures

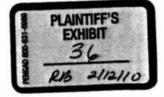
- Contractor Lighting
- Hospitality Lighting
- Restaurant Lighting
- Retail Lighting
- **Product Brochures**
- HID Lamps
- Industrial Lighting

MSDS (Material Safety Data Sheets) Disposal Policies & Recycling Information

GRAPHS & CHARTS

Spectral Power Distribution







Description

MVR750/VBU/PA

ANSI Code

M149

Standard Package

Case

Standard Package GTIN 10043168272190

Standard Package

Quantity Sales Unit

Unit

No Of Items Per Sales

Unit

No Of Items Per Standard

Package

UPC

043168272193

COMPATIBLE GE BALLASTS

Description	# of Bulbs	Power Factor	
P75048TAC5M500K	1		-
	•	90.0	1.0
P750MLTAC5M500K	1	90.0	1.0
	P75048TAC5M500K	Description Bulbs	Description Bulbs Factor P75048TAC5M500K 1 90.0 P750MLTACSM500K 1 90.0

A CAUTIONS & WARNINGS

R- WARNING: This lamp can cause serious skin burn and eye inflammation from shortwave ultraviolet radiation if outer envelope of the lamp is broken or punctured, and the arc tube continues to operate. Do not use where people will remain for more than a few minutes unless adequate shielding or other safety precautions are used. Certain types of lamps that will automatically extinguish when the outer envelope is broken or punctured are commercially available. Visit the FDA website for more information: http://www.fda.gov/cdrh/radhlth/urburns.html

See list of cautions & warnings.

NOTES

When operated on a 120 hrs. cycle (minimum), lamp life rating may be extended by up to 50% based on engineering estimates.

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